

File

State of California  
AIR RESOURCES BOARD

## EXECUTIVE ORDER U-R-16-2

Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

## MERCEDES-BENZ AG

Pursuant to the authority vested in the Air Resources Board by Sections 43000.5, 43013 and 43018 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following Mercedes-Benz AG 1996 model-year engine, with rated power between 175 and 750 horsepower, and exhaust emission control systems are certified as described below for use in heavy-duty off-road equipment:

Typical Equipment Usage: Crane

Fuel Type: Diesel

<u>Engine Family</u>	<u>Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems and Special Features</u>
TMB13.R6DARA	9.6/12.8 (584/779)	Turbocharger Charge Air Cooler Smoke Puff Limiter

Engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matters (PM) certification exhaust emission standards, in grams per brake horsepower-hour (g/bhp-hr), and the opacity of smoke emission standards, in percent (%), during acceleration (Accel), lugging (Lug), and peak (Peak) modes, for this engine family are (Title 13, California Code of Regulations, Section 2423):

<u>Exhaust Emissions (g/bhp-hr)</u>				<u>Smoke Opacity ( % )</u>		
<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
1.0	8.5	6.9	0.4	20	15	50

The THC, CO, NOx and PM exhaust emission certification values, in g/bhp-hr, and the opacity of smoke emission certification values, in percent (%), for this engine family are:

<u>Engine Family</u>	<u>Exhaust Emission (g/bhp-hr)</u>				<u>Smoke Opacity ( % )</u>		
	<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
TMB13.R6DARA	0.3	0.4	5.7	0.1	8	1	12


BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed engine models also comply with the "Emission Control Labels--1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2425 et seq.).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed at El Monte, California this 11<sup>th</sup> day of March 1996.

  
R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

1996 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
OFF-ROAD HEAVY-DUTY DIESEL-STANDARD ENGINES

Manufacturer: Mercedes-Benz Engine Family: TMB13.R6DARA  
 Displacement: 9.6 / 12.8 Liters 584 / 779 Cubic Inches  
 All Eng Codes in Eng Family: CA 49S 50S x Strokes/Cycle: 4 Valves/Cylinder: 2  
 Ignition: Compression x Compression with Glow Plug      Spark       
 Fuel Type(s): Dedicated x Flex-Fuel      Dual-Fuel      Bi-Fuel      Diesel x CNG       
                   LNG      LPG      M85      M100      Other (specify)       
 Diesel Cert Fuel: 13 CCR 2282      40 CFR 86.1313-90      40 CFR 86.1313-94 x  
 Maximum Rated Power: 375 HP @ 2100 RPM Engine Configuration: V6, V8  
 Exhaust ECS (e.g., OC, EGR, PTOX, IFI, TC, CAC): CAC, SPL, TC  
 (Use abbreviations per SAE J1930 SEP91)

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @ <sub>3</sub> Rated HP mm <sup>3</sup> / stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
OM402LA (OM402LA.EI/1)	375@2100	143...151	EP4319 & 0020178321	-	-	-
OM401LA (OM401LA.EI/1)	308@2100	158...168	EP4136 & 0020178321	-	-	-
(OM401LA.EI/2)	285@2100	145...154	EP4136 & 0020178321	-	-	-
(OM401LA.EI/3)	268@2100	134...142	EP4137 & 0020178321	-	-	-
(OM401LA.EI/4)	268@1900	142...150	EP4137 & 0020178321	-	-	-

Date Issued: 02-20-96

Revisions: